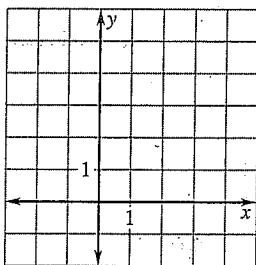


# Chapter Test B

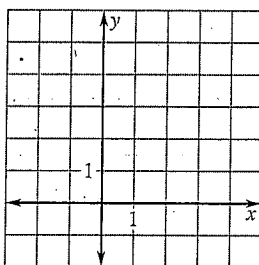
For use after Chapter 3

Graph the linear system and tell how many solutions it has. If there is exactly one solution, estimate the solution and check it algebraically.

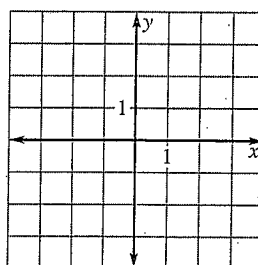
1.  $y = 3x$   
 $y = -x + 4$



2.  $y = x + 1$   
 $y = -x + 3$



3.  $x + 2y = -2$   
 $-3x - 6y = 6$



Solve the system using any algebraic method.

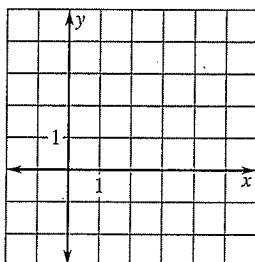
4.  $x + y = 2$   
 $y = 2x + 5$

5.  $y - 2x = -5$   
 $y - x = -3$

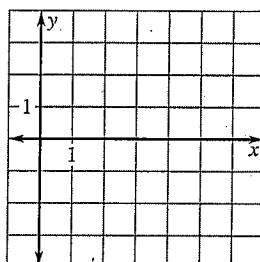
6.  $2x - y = -8$   
 $2x + y = 4$

Graph the system of linear inequalities.

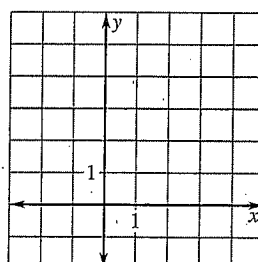
7.  $x + 2y \geq 4$   
 $x - y \leq 3$



8.  $y \leq 2$   
 $x > 3$



9.  $x \geq 0$   
 $y \geq 0$   
 $2x + y \leq 4$



Find the minimum and maximum values of the objective function subject to the given constraints.

10. Objective Function:  $C = 4x + 5y$

Constraints:  $x \geq 0$   
 $y \geq 0$   
 $x + y \leq 6$

11. Objective Function:  $C = 3x + 2y$

Constraints:  $x \geq 0$   
 $y \geq 0$   
 $x + 3y \leq 15$   
 $4x + y \leq 16$

## Answers

1. Use grid at left.

2. Use grid at left.

3. Use grid at left.

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. Use grid at left.

8. Use grid at left.

9. Use grid at left.

10. \_\_\_\_\_

11. \_\_\_\_\_